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09/964,150	09/25/2001	Hugh Barrass	062891.0525	1755
7590 04/01/2005			EXAMINER	
Baker Botts L.L.P. Suite 600 2001 Ross Avenue Dallas, TX 75201-2980			CHANG, EDITH M	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/964,150	<b>Applicant(s)</b> BARRASS ET AL.	
	<b>Examiner</b> Edith M Chang	<b>Art Unit</b> 2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1-22 are objected to because of the following informalities:

Claim 1, line 5: "one or more" is suggested changing to "the one or more"; line 9: "the switch" is suggested changing to "the data switch".

Claim 2 line 1, Claims 3 lines 1 & 2, Claim 4 line 1, Claim 5 line 2, Claims 6 line 2, Claim 7 line 2, Claim 9 line 1, Claim 10 line 3, Claim 11 line 1, Claim 12 lines 2 & 4, Claim 13 line 1, Claim 14 lines 1 & 2, Claim 15 lines 3, 5, 7 & 11, Claim 16 line 1, Claim 18 line 2, Claim 19 lines 1 & 5, Claim 20 line 2, and Claim 21 lines 2, 4 & 6 : "the switch" is suggested changing to "the data switch".

Claim 22, line 1: "the very high-speed" is suggested changing to "a very high-speed"; line 5 : "one or more" is suggested changing to "the one or more".

Claims 8 and 17 are dependent on the objected claims 1 and 15.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-14 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 9: "the operability" lacks antecedent basis and does not clearly indicated what or which operability of the data switch.

Claim 17, line 3: "complying substantially with a plurality of public standards" does not clearly indicate that it is complying with a plurality of public standards or not. When complying with public standards, it either complies with or does not comply with.

Claims 2-14 are directly or indirectly dependent on the rejected claim 1.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1-2, 5-10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstain et al. (US 6,088,368).

Regarding **claim 1, 8 & 13**, in FIG.2 & 3 and column 1 lines 5-7, Rubinstain et al. teaches a system and its method for transporting Ethernet over digital subscriber lines. The FIG.2 is the detail of the customer premises in FIG.3 of a high level block diagram illustrating an optical network unit (ONU 158) connection (column 8 lines 51-55) as the FTTN using the VDSL (column 3 lines 28-41).

In FIG.2, the PBX 14 transceives the voice as the POTS signal, the switch 18 of the LAN/WAN 16 and the MODEMs 20 as a data switch coupled to one or more groups of telephone 26 and PC 28 (units 26 & 28 as a customer premises equipment/CPE, column 8 lines

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15-21) transceives the 10BaseS data signal; the switch 18 and MODEMs 20 communicates with each group of telephone 26 and PC 28 via a link carrying the 10BasesS + POTS signal that the VDSL is for the 10BasesS data (VDSL, as the second predetermined PSD/bandwidth/channel); the other PSD is the one used for 10BasesS data such as stated in the table in column 11 lines 5-10 (as the first PSD) which is complied with ADSL and VDSL using the same modulation characteristic.

As the Roubinstain's system can use software to modify latency modes (column 7 lines 38-42) and it is well known that the communications with each group of telephone and PC of the switch and the 10BaseS Modem can be provided by software embodied in a computer-readable medium. It would have been obvious to a person of ordinary skill in the art, at the time of the invention, to have the software embodied in a computer-readable medium to operate the communication between the data switch and the groups of telephone and PC unites.

Regarding **claim 2**, in FIG.2, Rubinstain et al. teaches substantially simultaneously communicating with two or more groups of telephone 26 and PC 28 using ADSL and VDSL for 10BaseS data.

Regarding **claims 5-7**, in column 7 lines 11-13, Rubinstain et al. teaches the link used the 10BaseS data transmission (the first PSD) experiencing substantially high level noise and high signal attenuation with long exchanging lines as shown in FIG.1 when the switch or ONU is not located in a serving exchanging building (column 11 lines 41-53, where the noise is a function of the d the length of the wire in feet), and low level noise on shorter exchanging lines when the switch or ONU is located in a serving exchanging building (column 7 lines 11-13).

Regarding **claims 9 & 10**, in column 10 line 59-column 11 line 10, Rubinstain et al. teaches the high-probability mode link based on the modulation characteristic and complying with such as ADSL and VDSL standards with the same modulation characteristic (column 11 lines 5-10, wherein the bandwidth complying to both DSLstandards) to establish a VDSL link.

6. Claims 3-4, 11-12 and 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstain et al. (US 6,088,368) in view of Bingel et al. (US 6,775,355 B1).

Regarding **claims 3-4 & 11-12**, Rubinstain et al. does not explicitly show the control of the switch, however, it is well known in the art that the control of the switch includes the provisioning, operating, maintaining, etc. operated by an administrator. Further, in FIG.20 Bingel et al. teaches the switch controller via an external device 428 receiving the switch positions and channel assignment information (column 36 lines 14-19, as parameters of the channel/bandwidth/PSD stored in the memory 422) from an operator (column 36 lines 19-24) in the line selection unit FIG.19, wherein the switch direct the first customer premises via coupler A (column 29 line 64-column 30 line 2) for the MVL transceiver (60 FIG.5 & 6) which is the digital equipment for transceiving the data signal as show in FIG.1 & 2 (column 4 lines 44-47). In FIG.1 & 2, the low pass filter 36 separate voice to POTS 28 and data signal to the digital equipment 34 (column 3 lines 25-38). It would have been obvious to a person of ordinary skill in the art, at the time of the invention, to have the switch control taught by Bingel et al. in Rubinstain's switch to direct/control the plurality communication connections coupled to a common device (column 10 lines 33-38) to detect and minimize the leakage signal (column 6 lines 28-34) to protect the communication privacy (column 1 lines 25-32).

Regarding **claim 14**, the modified Rubinstein's switch with Bingel et al.'s teaching, the VDSL (a public standard) is the predetermined PSD to all the PCs.

Regarding **claims 15 & 21**, the modified Rubinstein's switch with Bingel et al.'s teaching (refer the rationale of claims 3-4 & 11-12) discloses a method for establishing a communication channel between a data switch (18 & 20 FIG.2 '368) and a CPE (26 & 28 FIG.2 '368), comprising:

establishing a modulation channel (column 10 lines 50-54, column 10 lines 60-63, and the table in column 11 lines 5-18, as a high-probability mode link);

determining a link/channel between the data switch and the first CPE according to switch position and channel assignment information (column 36 lines 14-19, as parameters of the channel/bandwidth/PSD stored in the memory 422 '355) stored in the memory (422 FIG.20 '355);

the data switch FIG.2 ('368) with the teaching of the switch control in FIG.21 ('355) and column 10 lines 4-7 ('355), directing, configuring, and communicating with the first CPE via the determined (the desired) link/mode;

the establishing, directing, reconfiguring, and communicating redone in response to the desired mode link going down between the CPE unit 28 (or the 10BaseS MODEM 20 connected to the PC 28 '368) and the 10BaseS MODEM 20 connected to the switch 18 (reestablish the link is one of well-known features of the 10BaseS MODEM).

Regarding **claim 16**, in FIG.2 & 3 and column 1 lines 5-7, Rubinstein et al. teaches a system and its method for transporting Ethernet over digital subscriber lines. The FIG.2 is the detail of the customer premises in FIG.3 of a high level block diagram illustrating an optical

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network unit (ONU) connection (column 8 lines 51-55) as the FTTN using the VDSL (column 3 lines 28-37).

Regarding **claim 17**, Rubinstain et al. teaches the high-probability mode link based on the modulation characteristic and complying with such as ADSL and VDSL standards (column 11 lines 5-10, wherein the bandwidth complying to both standards).

Regarding **claim 18**, in FIG.4, Rubinstain et al. teaches header and sync (as control packets) generated by 83 & 91 in a frame generated by 89 frame formatter and received by FIG.5A & 5B (68 FIG.5B). The sync and header packets in a frame contain parameters of the link (column 10 lines 21-30).

Regarding **claim 19**, in FIG.2, Rubinstain et al. teaches the 10BaseS MODEM providing an interface between the switch 18 and the CPE devices 28. It is well known in the art that the 10BaseS MODEM having registers to store the parameters of the link/mode.

Regarding **claim 20**, in column 7 lines 11-13, Rubinstain et al. teaches the link used the 10BaseS data transmission experiencing substantially high level noise and high signal attenuation with long exchanging lines as shown in FIG.1 when the switch or ONU is not located in a serving exchanging building (column 11 lines 41-53, where the noise is a function of the d the length of the wire in feet).

Regarding **claim 22**, in FIG.2 & 3 and column 1 lines 5-7, Rubinstain et al. teaches a system and its method for transporting Ethernet over digital subscriber lines. The FIG.2 is the detail of the customer premises in FIG.3 of a high level block diagram illustrating an optical network unit (ONU) connection (column 8 lines 51-55) as the FTTN using the VDSL (column 3 lines 28-37).

In FIG.2, the PBX 14 transceivers the voice as the POTS signal, the switch 18 of the LAN/WAN 16 and the MODEMs 20 as a data switch coupled to one or more groups of telephone 26 and PC 28 (units 26 & 28 as a customer premises equipment/CPE, column 8 lines 15-21) transceives the 10BaseS data signal; the switch 18 and MODEMs 20 communicates with each group of telephone 26 and PC 28 via the trunk carrying the 10BasesS + POTS signal that the POTS using the public standard for the telephone voice (PTOS, as the first predetermined PSD); the 10BaseS is the one used for data signal such as stated in the table in column 11 lines 5-10, wherein the table uses the PSDs complying to both ADSL and VDSL with the modulation characteristic.

Rubinstain et al. does not explicitly show the control of the switch, it is well-known in the art that the control of the switch includes the provisioning, operating, maintaining, etc. operated by an administrator. However, in FIG.20 Bingel et al. teaches the switch controller via an external device 428 receiving the switch positions and channel assignment information (column 36 lines 14-19, as parameters of the channel/bandwidth/PSD stored in the memory 422) from such as an operator (column 36 lines 19-24) in the line selection unit FIG.19, wherein the switch direct the first customer premises via coupler A (column 29 line 64-column 30 line 2) for the MVL transceiver (60 FIG.5 & 6) which is the digital equipment for transceiving the data signal as show in FIG.1 & 2 (column 4 lines 44-47). In FIG.1 & 2, the low pass filter 36 separate voice to POTS 28 and data signal to the digital equipment 34 (column 3 lines 25-38). It would have been obvious to a person of ordinary skill in the art, at the time of the invention, to have the switch control taught by Bingel et al. in Rubinstain's switch to direct/control the plurality communication connections coupled to a common device (column 10 lines 33-38) to detect and

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minimize the leakage signal (column 6 lines 28-34) to protect the communication privacy (column 1 lines 25-32).

With the modified Rubinstain's switch with Bingel et al.'s teaching, the data switch communicates with the CPE devices according to the setting stored in the memory by the operator.

As the Roubinstain's system can use software to modify latency modes (column 7 lines 38-42) and it is well known that the communications with each group of telephone and PC of the switch and the 10BaseS Modem can be provided by software embodied in a computer-readable medium. It would have been obvious to a person of ordinary skill in the art, at the time of the invention, to have the software embodied in a computer-readable medium to operate the communication between the data switch and the groups of telephone and PC unites.

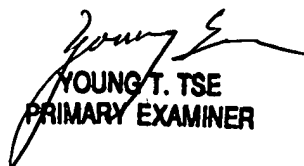
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang  
March 29, 2005

  
YOUNG T. TSE  
PRIMARY EXAMINER